REMARKS

Prior to this Amendment, Claims 1-5 and 7-9 were pending in this application. Claim 3 is objected to for informalities. Claims 1, 4, and 7 are rejected under 35 U.S.C. §103(a) as being unpatentable over Applicant's Admitted Prior Art (hereinafter, "AAPA") in view of U.S. Patent No. 3,678,393 to Newell and U.S. Patent Application Publication No. 2003/0199264 to Holenstein et al. (hereinafter, "Holenstein"). Claims 2 and 8 are rejected under 35 U.S.C. §103(a) as being unpatentable over AAPA, Newell, and Holenstein in view of U.S. Patent No. 5,901,347 to Chambers et al. Claims 5 and 9 are rejected under 35 U.S.C. §103(a) as being unpatentable over AAPA, Newell, and Holenstein in view of U.S. Patent Application Publication No. 2002/0186799 to Sayeed.

As indicated above, Claims 1, 7, and 9 have been amended. Claims 2 and 8 have been cancelled. New Claims 10-13 have been added. No new matter has been presented. Claims 1, 3-5, 7, and 9-13 are now pending, with Claims 1 and 7 as independent claims.

Regarding the §112, second paragraph, rejection of Claim 3, the Examiner states that there is insufficient basis for the limitation, "the saturation to RMS ratio." As indicated above, Claim 1, from which Claim 3 depends, has been amended to include the limitation of a saturation to RMS ratio, and therefore, there is proper antecedent basis for the limitation in dependent Claim 3. Accordingly, withdrawal of the §112, second paragraph rejection of dependent Claim 3 is respectfully requested.

Regarding the §103(a) rejection of independent Claims 1 and 7, which have been amended to incorporate the limitations of dependent Claims 2 and 8, respectively, amended Claims 1 and 7 are patentable over the prior art.

Regarding the §103(a) rejection of dependent Claims 2 and 8, the Examiner states

that the AAPA modified by Newell and Holenstein does not teach an automatic gain control device wherein the predefined reference value includes a reference power generated based on a saturation to RMS ration for minimizing the bit error rate of the OFMA system. The Examiner further asserts, "Chambers teaches an automatic gain control device (fig. 3) wherein the predefined reference value includes a reference power (AGC threshold 406 in fig. 4) generated based on a saturation to RMS ratio (saturation level 402 in fig. 4) minimizing the bit error rate of the orthogonal frequency division multiplexing system (col. 9, lines 10-13)." (Office Action, pages 5-6).

Chambers generally refers to two uses of a saturation level 402. First, a threshold 406 of the automatic gain control circuit 406 is set 6dB below the saturation level 402, which corresponds to $1_{VP\text{-}P'}$. (Chambers, column 9, lines 7-9). In the same paragraph, Chambers further states that a sensitivity level 408 is set at 20dB above a noise level 404, corresponding to an SINR of 20dB and a received BER of less than 0.1%. (Chambers, column 9, lines 10-13). In other words, although saturation and BER are mentioned in the same paragraph, they are used in two different contexts. The saturation level 402 is used to determine a threshold 406, while the BER is only referenced with regards to using a noise level 404 to determine a sensitivity level 408. Further, this passage generally refers to saturation, but does not specifically refer to a saturation to RMS ratio. Therefore, this passage of Chambers does not teach, disclose, or suggest that the saturation to RMS ratio is used to minimize the bit error rate.

The second usage of the saturation level 402 in Chambers is setting the DC reference level identified as V_{ref2} to the baseband saturation filer level 402, which is provided to the input 381 of a comparator 368. (Chambers, column 9, lines 14-19; FIG. 3). Similarly, this usage merely refers to saturation, but does not specifically refer to a saturation to RMS ratio.

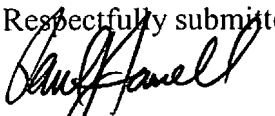
Further, neither of the two uses of saturation described in Chambers correspond to that claimed in the present application. The present application states that the saturation to RMS ratio is used in generation of a reference power, the reference power being subtracted from a DC offset. Chambers does not teach, disclose, or suggest a saturation to RMS ratio used in generation of a reference power that is subtracted from a DC offset. Therefore, Chambers does not cure the deficiencies of the AAPA, Newell, and Holenstein.

Therefore, the AAPA, Newell, Holenstein, and Chambers do not teach, disclose, or suggest, alone or in combination, all of the limitations of amended independent Claims 1 and 7. Accordingly, withdrawal of the §103(a) rejection of independent Claims 1 and 7 is respectfully requested.

Claims 3-5 and 9-13 are dependent claims, and are believed to be in condition for allowance for at least the reasons given above with regard to their respective independent Claims 1 and 7.

Accordingly, all of the claims pending in the Application, namely, Claims 1, 3-5, 7, and 9 are believed to be in condition for allowance. Should the Examiner believe that a telephone conference or personal interview would facilitate resolution of any remaining matters, the Examiner may contact Applicants' attorney at the number given below.

Respectfully submitted,



Paul J. Farrell
Reg. No. 33,494
Attorney for Applicant

THE FARRELL LAW FIRM, LLP
290 Broadhollow Road, Suite 210E
Melville, New York 11747
Tel: (516) 228-3565
Fax: (516) 228-8475